

## THE LIBRARY OF THE UNIVERSITY OF NORTH CAROLINA



### THE COLLECTION OF NORTH CAROLINIANA

C917 H84g c.2



This book is due on the last date stamped below unless recalled sooner. It may be renewed only once and must be brought to the North Carolina Collection for renewal.



# Great & Important Changes

by Robert B. House



#### INTRODUCTORY NOTE

As stated in the introductory pages of this publication, Dr. Kemp P. Battle, then President Emeritus of the University of North Carolina, on February 6, 1915, delivered to the then president of the North Carolina Historical Society a hermetically sealed tin box containing a Montgomery Ward catalog of that year. Accompanying the box was a letter directing the president of the Society to open the box in 1965 and again in 2015, and in each instance to designate a student to write a thesis on the changes made in the industries and avocations of the United States as illustrated by the descriptions and pictures of articles appearing in the catalog. Dr. Battle further stated that he was requesting that such of his descendants who might be living in 1965 and 2015 would pay to the writers of the respective theses the sum of fifty dollars.

Two circumstances have prevented a literal fulfillment of Dr. Battle's instructions: the North Carolina Society is no longer in existence, and the small sum of money put up by members of the Battle family some years ago was lost in a bank failure. As a practical solution, it was agreed that since the Southern Historical Collection of the University of North Carolina Library is an heir to some of the holdings and activities of the North Carolina Historical Society, the current director of this Collection might appropriately act in the capacity originally designated for the president of the earlier organization. At the same time, a group of Dr. Battle's descendants, wishing to carry out their ancestor's request, have supplied not only an amount sufficient to pay the writer of this essay somewhat more than the originally suggested fifty dollars, but also to provide for publication of this pamphlet.

It was further decided that the word "student" seems broad enough to cover persons not actively pursuing work for a degree in the University of North Carolina and, at the suggestion of certain members of the Battle family, Mr. Robert B. House, retired Chancellor of the University of North Carolina at Chapel Hill, was invited to write the "thesis." Mr. House accepted, with the result that this pamphlet is now written, printed, and made available for distribution.

Though not so requested in Dr. Battle's instructions, it has seemed advisable to secure a 1965 Montgomery Ward catalog and to use this for comparison with the 1915 catalog in indicating the "great and important" changes made in articles in use over the past fifty years. For like reasons, a copy of the 1965 catalog has been placed, along with the 1915 copy, in the box that is to be opened again in 2015.

It is pleasing to note also that as a further means of facilitating the 2015 performance, members of the Battle family have established a trust fund which will presumably yield, by the year 2015, a sum sufficient to make possible a repetition of the 1965 procedure.

James W. Patton, Professor of History and Director of the Southern Historical Collection, the University of North Carolina

Chapel Hill, North Carolina May, 1967

#### CONTENTS

Introductory Note	iii
Great & Important Changes	1
The Automobile & Good Roads	11
Rural Telephones & Electric Power	25
Consolidated Schools, Colleges, & Universities	33
Bibliographical Notes	51

Illustrations are from Montgomery Ward and Company's Catalog No. 82.



#### Great

## & Important Changes

The Machine Age in North Carolina as seen by comparing Montgomery Ward and Company's Catalog of 1915 with that of 1965

The title of this essay is a phrase from a letter Doctor Kemp Plummer Battle wrote to the President of the North Carolina Historical Society on February 9, 1915. Doctor Battle, then in his eighty-fourth year, was President Emeritus of the University of North Carolina and Alumni Professor of History. There was never a truer prophecy than Doctor Battle's statement that "the changes will be great and important." Its setting and the whole unique body of the document follows:

Sir: I ask the acceptance by your Society of a hermetically sealed tin box containing a copy of Montgomery Ward's catalogue, in which are descriptions and pictures of practically all articles used now in the industries and avocations of the United States. This gift is on the following conditions.

The box is to be opened in 1965, A.D. and again in 2015 A.D. and a student designated by the President of the Society, shall write a thesis on the changes of

the preceding semi-centennial period. I request my descendants of those dates to pay \$50, (fifty dollars) to the writer of the thesis. I have no doubt that such payment will be duly made, as I have now seven children and grandchildren, married and doing well, who agree to this proposal. As I have also four great-grandchildren, it is almost certain that my descendants will be numerous fifty and one hundred years hence.

That the changes will be great and important in the articles in use in 1965 and 2015 may be gathered from the fact that the rail road system, telegraph, telephones, the machines worked by electricity, air craft, submarines, & hundreds of other inventions, have been made practical since I was born, and most of them within fifty years.

Hoping that you may be able in health and

strength to assist in opening the box in 1965."

I must explain how I came to write the "thesis" as prescribed by Doctor Battle. From the fall of 1912 till the summer of 1915 I was a tenant in Doctor Battle's "lower office," as an undergraduate in the University. Doctor Battle was at work in his "upper office" on his memoirs which were edited by his son, William James Battle, and published under the title Memories of an Old-Time Tar Heel. I had the privilege of conversations with Doctor Battle about things historical, but I did not know about his filing the catalog and his letter. I have written about my association with Doctor Battle in my own book, The Light That Shines.

The North Carolina Historical Society is now defunct. Its surviving affairs are administered by the Southern Historical Collection, directed by James W. Patton. In the spring of 1965 Dr. Patton told me that, in carrying out the provisions of Doctor Battle's letter, the family were asking me to write the "thesis." I responded gladly as to a sort of spiritual commission from Doctor Battle himself. I do not possess the train-

ing necessary to defend a formal historical thesis. But I think Doctor Battle was using the word as it was used in his day to designate an essay each University Senior had to write as a requirement for graduation. I limit myself to this sort of essay.

My theme is the rise of North Carolina from perhaps the worst balanced state, economically, socially, and culturally, to a unique balance that is peculiar to the state, and one of the best in the country.

My thesis is that the Machine Age has produced this greatest and most important change in the life of North Carolina.

I draw the phrase "Machine Age" from the concluding chapter of *The Rise of American Civilization* by Charles A. and Mary R. Beard, published in 1930. They apply the title to 1900-1930. I apply it to the period 1900-1965. The Atomic Age is one of the titles used to characterize the epoch beginning with the first explosion of the atom in World War II. Not only is this epoch still undefined in history, it does not express itself in any article offered for sale in Ward's catalogs. But machinery dominates both the catalog of 1915 and that of 1965. The Machine Age, say the Beards, is distinct from the immediately preceding Steam Age. It is marked by three agencies:

- The internal combustion engine and electric power. Both of these were coming into general use about 1880.
- Automation, mass production, and mass consumption. These are associated with Henry Ford and production of war goods in World War I. They shape America today.

3) Discovery, invention, and research. These, of course, have developed through the centuries, particularly in universities. But a unique development of research marks the Machine Age. This is organized

research in which universities, business, and government increasingly cooperate in teams of specialists. The Beards call this "The Invention of Invention."

It is interesting to observe, and vital to my theme, that in the 1880's, North Carolina was making strenuous efforts through industry and education to break the shackles of poverty resulting from the period of Civil War and Reconstruction. The University at Chapel Hill, reopened in 1875, was laying the foundations of a modern university. North Carolina College of Agriculture and Mechanic Arts was founded in Raleigh. North Carolina Normal and Industrial College, an institution for women only, was founded in Greensboro. Trinity College was moved from Randolph County to Durham. Strenuous efforts were made to build and staff the public schools, but with no noteworthy results.

In 1899 Dr. M. C. S. Noble contributed a special section on North Carolina in Maury's Manual of Geography which was one of my school books around the year 1900. It is still an inspiration to me in its warm patriotism and its pride in the progress of North Carolina. It took for granted agriculture as the chief occupation of the commonwealth. One feature was diversity; North Carolina was growing with profit every crop listed in the farm census of the United States. But cotton, corn, and tobacco were the great money making crops. Next in importance was the great variety of trees, the lumber business, and the rising furniture interests. The pines were chiefly emphasized. The export of tar, pitch, and turpentine was the chief international business of North Carolina. There is a roll call of the great rivers and emphasis on waterpower. "It is claimed," says Dr. Noble, "that the total water power of the State is more than enough to manufacture twice the entire cotton crop of the South." And it is noted that "In Yadkin

County the waters of the Yadkin River furnish Winston, twelve miles distant, with electric power for lights, street cars, and factories."

Winston was then a city of 10,000 people adjoining Salem, a city of 3,000. The two were soon to unite as Winston-Salem. The Yadkin River power plant was the beginning of the great hydro-electric development that is still going on. The rivers of North Carolina were in the next fifty years to make North Carolina a vast industrial complex, well distributed in the cities, towns, and rural districts. They were to place R. J. Reynolds Tobacco Company, Liggett & Myers Tobacco Company, The American Tobacco Company, and Burlington Industries, Inc., as four among the one hundred largest companies of the United States. Many other great firms were to develop, especially in textiles, tobacco, foods, chemicals, lumber, paper, furniture, and many other fields.

North Carolina had no large cities. Wilmington was the largest with 22,500 people. Charlotte was next with 20,000. Very few other cities exceeded 10,000. But there were many vigorous towns. Wherever a town is a railroad center, the importance of railroads is stressed. But they are all short lines. The consolidation of the railroad empires was yet to come. And when it did come it left North Carolina without a first-rate east to west through line and set the state in controversy with the railroads for the first twenty-one years of the twentieth century. It is a complicated maze of transportation statistics about rates, schedules, and practices which impressed on the popular mind that North Carolina was a step-child of the railroad empires. It made the commonwealth alert and eager for some way to break loose from the thralldom it felt was unjustly put upon it. North Carolina as a whole was hardly in the steam age. It was in the mud and dust of the horse and buggy age.

The way out was to come through a combination of transportation on paved roads, gasoline-powered vehicles, electric power, and education. But, at the opening of the twentieth century, North Carolina was one of the worst balanced commonwealths in the union, economically, socially, and culturally.

The state was held down not only by difficulties in transportation, but also by kindred difficulties in communication. In addition to local pride and jealousy between town and country, which have characterized agricultural civilizations through the ages, North Carolina's rural mind was influenced by a series of extremely hot political fights and divisions of sentiment, thought, and action.

In 1900 came the great leader, Governor Charles B. Aycock. He is justly known as "The Educational Governor." Under him the common schools really came to life as a power in the lives of the people. But even more important was Aycock as the spiritual symbol of the great leaders from Doctor Battle to McIver, Alderman, Polk, Page and Joyner. I heard him in 1900 at the Weldon Fair and felt with him the confidence he inspired that North Carolina people could get together and go forward in every field of enterprise.

The spirit of Aycock is still the spirit of North Carolina. Every governor since him has been a champion of educational, social, and cultural advance. Every General Assembly and all the people by and large have followed his lead.

This brings me to 1915 and my special theme. I continue with the North Carolina story as illustrated in the catalogs, 1915 to 1965, in the three chapters that follow.

I have faithfully thumbed Wards of 1915, Wards of 1965, and Sears of 1965. (I here pause to make a note on usage of the names of these firms. Montgomery Ward and Company, and Sears, Roebuck and Company now use the names "Sears"

and "Wards" except in formal contractual documents. To save words and for convenience I use "Wards of 1915," "Wards of 1965," and "Sears of 1965" in the numerous references to the firms and the catalogs.)

The Machine Age has produced important changes in the mail order business. I consult Sears because in these changes Sears has become more domesticated in North Carolina than Wards. Sears of 1965 comes from the state head-quarters which is now in Greensboro, North Carolina. Wards seems to lean toward the West.

Wards and Sears both maintain a growing mail order business still, but they have also become chain stores, each with nearly a thousand local stores. In 1915 Wards and Sears were tied to the railroad for transportation and to the post office for communication. In 1965 they use every form of transportation and communication. In 1915 they held to a strict policy of cash with order. In 1965 they use every form of credit financing. Credit financing is prevalent in Machine Age merchandizing. It is said to have been first developed to national proportions by the automobile trade.

These changes bear on the worth of the general mail order catalog of 1965 as a historical document comparable in completeness with the general catalogs of 1915. Many important categories of trade are omitted from the general mail order catalogs today. For instance, groceries was a main category in Wards of 1915. Groceries are entirely omitted from Wards of 1965. The reason, I think, is obvious. Who can wait for groceries by mail when the Machine Age puts the pick of the world fresh each day in the corner grocery store?

But in general Wards and Sears dominate the mail order business. Wards, founded in 1872, is the oldest mail order house in America. Sears, established in 1886, is the largest in America. Between them they operate one of the

largest publishing businesses in the world, the editing and publication of their catalogs. Between them they operate one of the greatest direct advertising systems in the world. Operating independently, of course, they send out over a million catalogs a year. The Machine Age has turned these catalogs into fine specimens of the printing art comparable with the best of the slick paper magazines in text, in colored illustration, and in attractive but more restrained advertising techniques. This miracle of swift but accurate bookmaking involves many features of Machine Age productions, as will be indicated in the course of this study.

These giant catalogs are still a fair representation of the things in common usage. The mail order house is a conservative business. It stocks only what masses of people buy regularly. When we see it in Wards or Sears we know that millions of people use it. These catalogs go to every type of American home. They are shopping guides for the adults. They are "Wish Books" for children. My friend, Manly Wade Wellman, recalls for me that old phrase. They inspire confidence now as always. My friend, Preston H. Epps, told me a Georgia story illustrating their felt reliability. "My friends," the first Governor Talmadge would assert in his campaign, "the Georgia farmer aint got but three friends,—God, Sears Roebuck, and Gene Talmadge!"

I love reminiscences. The sight of the black and white text of Wards of 1915, the black and white pictures of a multitude of old things, the sparing use of color in those days, all tempt me to linger over Wards and Sears as I did when they were my encyclopedia, my book shop, my world of romance in far away Chicago. But I restrain myself and refer my readers to the masterpiece in this kind. It is *The Good Old Days* by David Lewis Cohn, based on Sears, 1905-1940. This work covers exactly one-half of the period I deal with.

It is an inimitable novelesque history of morals and manners. It is a delight in its affectionate memories, and in humor spiced with satire. I do not attempt anything in this kind. I turn instead to the story of North Carolina as told up to 1925 by R. D. W. Connor in North Carolina, Rebuilding an Ancient Commonwealth, and brought up to date by Hugh Talmage Lefler and Albert Ray Newsome in North Carolina, The History of a Southern State.

My theme reaches its climax in Governor W. Kerr Scott's statement in 1953 that North Carolina had the best balanced situation in the union. One-third of our people, he said, lived in the country and made their living there. One-third lived in town and made their living there. The remaining third, he said, made their living in town but lived in the country.

Assuming that this is a unique and desirable situation, I show the contributions made toward it by:

- 1) The automobile and good roads,
- 2) Rural telephones and electric power,
- 3) Consolidated schools, colleges, and universities.



#### The Automobile

#### & Good Roads

One day in the 1930's Judge Francis D. Winston, Louis Graves, and I ate a leisurely luncheon together at the Carolina Inn in Chapel Hill. Our desultory conversation came to center on the question, "Who is the greatest man in American history?" Judge Winston sat silent while Louis and I brought out some worthy heroes. All of a sudden he cut in emphatically as follows:

Well, I can't tell you who the greatest American is, but I can tell you the man who has changed more people and more things in America than any

other man, and that man is Henry Ford!

Why, when old Joe Gilliam down in Bertie loads his wife and children into his old Model-T Ford after breakfast, drives twenty miles to Windsor, spends the day there buying things and seeing all there is to buy, seeing the sights, and seeing all of Bertie's country folks doing the same things, then drives home to tend to his milking and his stock before dark, I'll tell you the whole bunch have brought home more ideas, more ambitions, and more progress than all the Gilliams before them put together, and the Gilliams have been in Bertie a long time.

Judge Winston's enthusiasm was based on about ten years of experience of the automobile and good roads working together. He had seen the automobile proliferate as a bus, a



school-bus, a truck, a tractor; as a mobile power tool in agriculture, industry and commerce, with amazing improvements in the economic, social, and cultural life of the commonwealth.

But Doctor Battle, writing in 1915, and Wards, selling in 1915, united in giving the automobile a relatively low place in the scheme of things. Doctor Battle omits mention of the automobile by name in his informal list of great inventions. Wards of 1915 devotes four matter-of-fact pages to the automobile, but displays the horse in all his glory in over fifty pages. And the explanation is that adequate roads were lacking to the automobile.

There was no question of the efficiency of the automobile itself. Ford, for instance, had brought out the Model T in 1908. That wonder could almost climb a tree. But what it actually did was hit trees standing too close to narrow winding country roads. The Paris taxicab had turned the tide of battle at the Marne in 1915. But America in general and North Carolina in particular did not have the surfaced roads of France. There were experiments with sand-clay and macadam. But the simple truth, which it took the Highway Commission seven more years to determine, is that pavement is the only reliable all-weather road for the automobile. And, say Lefler and Newsome, there was but one mile of concrete pavement in the whole state of North Carolina in 1915. Moreover, an automobile, to operate effectively must have service stations and telephones along the highways. These were few in North Carolina in 1915. The service truck had not even been invented.

In 1915 a car could not go twenty-five miles without a puncture or blow-out of the tires. Stones, ruts, all the debris of a century of horse and buggy roads, not only ruined the tires but also jarred loose the machinery. Few women dared to drive in those days. It took an able-bodied and reasonably skilled mechanic to operate as a driver. Kay Kyser appropriately reminds me of a popular song of 1915 addressed to the driving public. It was "Get Out and Get Under."

Wards of 1915 came to the rescue. Wards did not sell automobiles. It found its trade in supplying accessories to cars already in the possession of the buyers. Automobile supplies in Wards of 1915 featured these items: (1) tires and tools, and materials to fix them, (2) tools for the roadside driver mechanic, and (3) all sorts of gadgets for broken and lost parts of the machinery.

There is no need to itemize these things. Every surviving driver of the period has these ground into his memory by frequent usage. They would only excite laughter or pity and fear in the younger drivers of today. But the tires give the whole road situation. Wards Riverside Tires were guaranteed for 3500 miles "unless they are injured through misuse, or through stonebruise or other accident." Wards always makes good its guarantees. But it is a safe surmise that the firm was seldom required to make this one good.

Wards of 1915 did not give a picture of the automobile to add glamour where glamour was not. But look at the horse! He pranced with bridle and saddle. He trotted to sulky, road-cart, and buggy. He teamed with an equal mate to phaeton, surrey, and carriage. He completely threw himself into the work of pulling every sort of cart, wagon, plow, cultivator, and harvester. He had a private beauty parlor in the barn. It was for him the blacksmith's forge glowed and rung as it had done through the centuries. A long list of veterinary supplies attended his indispositions. He was fellow workman and fellow play boy with his master.

Wards of 1965 completely reverses the picture. It devotes eighty-five pages to the automobiles and its descendants, pic-

tured in glory. But it does not even mention the horse. He is not any longer in common usage, and Wards sells only what is in common usage. But no historical change is ever one hundred per cent. The horse is still a work companion on many farms and in many occupations. As cattle farming increases in North Carolina the horse is reappearing in his Wild West role as a range master. He is still a sports companion. But I have been to fox hunts in which the men and women rode in cars and the dogs rode in trucks. If there is no active function left for the horse, he will survive as a pet.

The Riverside Tires are going strong in Wards of 1965. They indicate the perfection of the passenger car on good roads. The passenger car tires are guaranteed for thirty months "against road hazard and tread wear." They are turnpike tested on trips from coast to coast at an average driving speed of 61.63 m.p.h.

There is also a special high speed tire "track tested at speeds up to 160.1 m.p.h. on a hot gruelling Texas test track." All honor to legalized racing, but there is an ominous note on this speed-mad age in the statement that these tires are in stock at catalog stores "with immediate low cost installation."

The Riverside Tires next indicate how the automobile has developed into a bus, a truck, and a tractor. Powerful traction tires are offered for each of these. An unusually important item to note is the bulldozer blade. The bulldozer is a returned G.I. with a record in World War II comparable to that of the airplane. It, with its kindred power machines, is now remaking the landscape into park-like expanses dotted with beautiful lakes. It is particularly impressive to see it building streets, roads, and even railroads.

The next offering featured is the automobile trailer. It is a complete mobile house furnished with every conveni-

ence of a modern home. It is seen everywhere, separately parked or in developed villages. The camp trailer is almost as elaborate. The boat-carrying trailer indicates the recreational use of the bulldozed lakes and the enjoyment of the great power reservoirs on the rivers.

A most significant field of automobile service has been developed by Wards in spite of the auto salesman's urge to "trade in." It is the rebuilding service. There are rebuilt engines, bodies, and smaller elements for just about every make of domestic and foreign car. It indicates something of a Scotch tendency to make the old car do. It indicates more importantly how some 50,000,000 new cars a year replace recent but not new models which go at once into the used car market. And then the final stage: cars such as the Model A and even the Model T find users with the aid of Wards. Wards undertakes to furnish tires for just about any car of "ancient vintage."

The tire repair kits and the roadside mechanic items are minor things in Wards of 1965. Women now drive as freely as men. Elderly ladies take off alone on a transcontinental trip now with less trepidation than a lady of 1915 would have felt in undertaking a drive to church. Tools and such things still come with the new car. Many drivers lose them through lack of use. It is the custom now to call upon a passing motorist or to use the phone to summon aid from a near-by service station.

So far I have mainly considered the automobile in itself and in its direct effect on people and things illustrated in the 1915 and 1965 catalogs of Wards. Beyond my province is the automobile as a weapon of war. I emphasize it as a machine in peace. It is the most self-contained and resourcefully mobile combination of the internal combustion engine and electricity produced by the Machine Age. In strict definition it is not

just the ubiquitous land machine of every-day life. It is also the Diesel locomotive on the railroad, a boat on the water, and an airplane in the skies. It is the perfect example of automation, mass production, and mass consumption. The new ways of making a living it has produced, the labor and materials it consumes, run into astronomical figures. It rests on discovery, invention, and research as much as anything we know.

North Carolina participates in every influence the automobile has on America. In particular it has by-passed the ancient railroad problem and is forcing the railroads now to reconsider their former short-sighted policies about rate differentials and schedules. Their function is of course indispensable. The automobile has made possible the consolidated schools with the largest fleet of school busses in the world. It implements the Consolidated University. The on-campus existence of this University and all of its state-wide services are based on the automobile. Home and farm demonstration, industrial and commercial extension service, the Division of Health Affairs, the hospital system, the Research Triangle would all be impossible without the automobile, and always its partner, the good road. I have illustrated from state institutions. The illustrations could be drawn from Duke University and the church-related colleges. "The automobile" says the World Book Encyclopedia, "has completely made over the lives of the American people. The automobile has changed where we live, the kind of houses we have, the way we earn our living, the food we eat, and how we spend our vacations."

As to how we spend our vacations, travel ranges are infinite. Country or town, farmer or banker, North Carolinians go anywhere they please.

Except in close-up pictures to show the detail of the automobile itself, 1965 pictures the automobile in scenes of

mountain and sea, of lake and forest, in all the glamor of freedom in the natural world, but one traversed by a good road. The glamor is not over-exaggerated. The world is real, beautiful, healthy, and exhilarating and the great contribution of the automobile is that is has made this natural world easily available for all.

Consequently the catalog of 1965 displays the car or the station wagon equipped with a carrier top or a trailer. It is ready to carry a boat, a tent, an out-door cooking unit, a portable electric plant, hunting equipment, fishing equipment, radio, TV, Hi-Fi, cameras, skis, surfboards, skin-diving equipment, golf clubs, beds, and sleeping bags. And, in case the vacationer goes far from the service station and the grocery store, there is a battery re-charging plant for the car, and a refrigerator or freezer for food.

In North Carolina the automobile has certainly increased the commuting range between the worker and his job. It has made possible Governor Scott's observation that one-third of our population live in the country but make their living in town. As a hobby I have explored the environs of Chapel Hill as a sample. From cooks, maids, janitors to university professors, workers live as much as fifteen miles from town and commute by automobile. Since World War II students have been commuting over a range of fifty miles day and night.

The automobile as transportation and self-contained mobile power is the chief agent in building houses in both town and country. It operates continuously from the chain saw that cuts down the trees, and the bulldozer that digs the basement and shapes the grounds, to the power mower that keeps the lawn smooth.

In the way we earn our living the automobile has revolutionized farm work, with machine farming and business

trips for the man and the curb market for the women. On the other hand, many town people live by businesses in the country which would be impossible without the automobile.

Now for a swift glance at the automobile's influence on other things in the catalog.

In Wards of 1915 as well as in Wards of 1965 clothing occupies more space than any other category of items. As between 1915 and 1965 the fundamental changes are as follows: (1) less clothing on men, women, and children, (2) less formality in the clothes that are worn, (3) designing that gives more freedom to the body to function in work or play.

Central heating and air conditioning keep homes, working places, and automobiles at an even, comfortable temperature the whole year round. Central heating was becoming more prevalent in 1915, but the only cooling machine was the fan. For most people there was a distinct and bunglesome seasonal difference between inner and outer garments for men, women, and children. It was the day of long woolies, thick suits, and long heavy ulsters for men in winter. It was the day of long woolies, the balmoral, numerous petticoats, long ground-sweeping dresses, and heavy coats in the winter for women.

In summer is was B.V.D.'s and linen or palm beach for men; cami-knickers and thin flowing dresses for the women. In all seasons the women wore large, floppy hats and corsets.

Children were equally swaddled or unwrapped according to the season. But in all seasons they too had to be fully clothed.

Formality had more to do with overmuch clothes than weather. There has been no formal change in occasional evening clothes, full dress or tuxedos for men, or evening

WOMEN'S STYLISHLY TAILORED

#### Worsted Crepe Suit

Endorsed by Fashion Short Cutaway Coat Skirt draped in front



A freely Tailord Suit of excited wallby, all winted grees. Made on parcell lines, in attacher new ords, alexes seven in an attacher new ords, alexes seven in an attacher held, and held, and held, and held on held said. Canasay freels, graduather to 20 tool length. A wide for plant down overthe back, and state phat arone said of out, Collar and ords, are returned with Equical Boundaries wilk and mostly indicates. The shift shows the new caused upon front densed effect, and is caused what the Collar and the shift down doubt which was the canada the control for the shift class including the control for the shift of the property lates.

Men's All Wool Worsted Suit

With Skinner's Guaranteed Satin Lining



FREE A Durham-Duplex Safety Razor WITH EACH SUIT

Prices member to state size wanted when ordering

when ordering
2W100-Blue Worsted Solt and
Raser \$11.45
2W102-Brown Worsted Solt
and Hasor \$11.45
2W96 - Extra Blue Worsted
Trousers to match \$2.95
2W96 - Extra Brown Worsted
Trousers, to match 2W102
2E55 2W92 - Sine Worsted Suit, with tetra Trousers and Razer \$13.95 2W94 - Brown Worsted Suit, with extra Trousers and Razor. 813.95

#### Skinner's Guaranteed Satin Lining

lined with durable, striped twill.

Coat is made in three-button.

No too close fitting for comfort

shoulders to conform with the

presulting style. Interfined the

presulting

Trousers are made in the THE TAILORING and work-marchine, together with the fab-rice, sivile and appearance make these policy even superior to the usual \$13,00 relativations.

Fires: 35 to 44 high chest measure; 36 to 42 then waist measure; 30 to 36-both in-

Shipping Weights:

This offering is an impressive example of our value-giving



FREE WITH EACH SUIT

Durham-Duplex Safety Razor With men double-step blades and strophes lodder. This range of the step of the state of the stat dresses for women. But there have been startling changes in the daily dress of men, women, and children.

In 1915 men appeared in hat, shirt, tie, coat, vest, pants, and shoes. In 1965 most men do so appear on the street and in the office. But there is wide toleration for the bare head, the tie-less collar, the sports coat and slacks. In lesser numbers men appear in shorts, with or without shirts, with or without shoes.

Women for the most part cling to the dress. But it is shorter and it allows much more freedom of movement than did the dresses of 1915. Furthermore, an amazing change in convention has occurred in women's clothes, since they now appear at will in pants and shorts. This revolution in women's apparel brings me emphatically to my main point about clothes and freedom of movement among machines.

Men have always worked with machines. Since the beginning of the Industrial Revolution their clothes have been made with reference to machines. Up until 1915 women had little to do with machinery. Today, however, women drive cars as much as men do. They also work with machines regularly in field and factory. World War I put women into men's shirts and overalls for convenience and safety as they took their places in war work. Men in shorts were rare phenomena in the 1930's. Women in shorts are phenomena after World War II. In the increased use of the automobile at work and at play women have followed suit with men in clothing more adapted to bodily movement. What she took over from man woman has now stylized into femininity. This shocks the purist. But purists are a shockable breed.

How on earth could a woman drive a car in a groundsweeper skirt and a floppy hat? She could not see one and dodge it even as she minced across a muddy or dusty street. And her feet and legs were manacled when the hobble skirt came in. And consider the strait-jacketing corset plus a tangle of underclothes!

Woman had to change her clothing habits to be a car driver and a machine worker. She had to change them also to be a sports-woman, an efficient picnicker and vacationer with the automobile. A case in exact point is the evolution of the bathing suit. Aesthetic and other considerations aside, the 1915 bathing suit for women was not designed for a woman in water deep enough to swim in. Availability, almost compulsion, of swimming instruction is a thrilling feature of the past thirty-odd years. It is mainly a contribution of physical education in school, college, and university. It is supplemented by the summer camp, the country club, or some other club or organization. It is in response to the lakes, rivers, and seashore made available to all the people by the automobile and good roads. There are no doubt extremes in the design of women's bathing suits. Part of this is the ever-present extremism in human nature. Part is the vogue of suntan. But a majority of the most conservative women now can swim and want a suit fit to swim in.

About the most heavily clad people in the catalogs are the hunters and fishermen. They are abundantly cared for in Wards of 1915 and in Wards of 1965. World War II has made a marked improvement in the guns. Quail shooting equipment is about the same. But reforestation has increased the deer, bear, and wild boar. Wards of 1965 emphasizes the rifle and the telescopic sight. The fisherman's supplies are about as in 1915. The vast change in hunting and fishing is the week-end, long distance camping trip for hunters, fishers, hikers, golfers, and swimmers.

The automobile would have been of no avail without the good road. The good paved system of primary roads came in 1921 under Cameron Morrison, the Good Roads Governor.

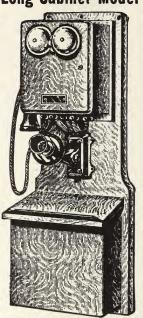
The good paved secondary road system is popularly called the "Kerr Scott Roads," a tribute to Governor W. Kerr Scott who led in building them in 1949-1953. Every governor has been a good roads governor, however. And since 1915 the federal highway system has developed to its present magnificent proportions.

This makes good one-third at least of Governor Scott's statement about balance. In transportation and in oil-fueled power North Carolina is well abreast of the nation.

#### \$975 Lakeside Cabinola Grand



**Bridging Telephone** Long Cabinet Model



#### LAMPS DIAMOND W. HIGH-GRADE ELECTRIC

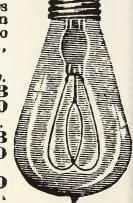
\$37.5

Best quality new Class A Lamps. Guaranteed life, strictly high-grade. Made by one of the foremost factories country. Standard Edison State exact voltage of line to the be used on if possible. Packed. wt... about 8 oz. each.

3DG884-8 C. P., 110 volt lamp. Each Dozen

306886-16 C. P., 110 volt lamp. Each ....80.13Dozen 1.40

306888-32 C. P., 110 volt lamp Each Dozen



## Rural Telephones & Electric Power

During the summer of 1965, I spent considerable time exploring the environs of Chapel Hill. I was accompanied on these brief trips by my wife and our Chapel Hill cousin and her husband. They furnished the car and did the driving in these days too speedy on the highways for me. They are experts on the countryside. Several evenings ago we took a trip that gave a vignette of what I have written so far and of what is to come.

First we drove out on a paved road to take another look at the tower of WUNC-TV, the educational TV transmitter of the consolidated university. The husband cousin gives the science and nature program over that system. He also was a lecturer for some years in the Morehead Planetarium. Then we proceeded west a few more miles on the same paved road. We saw some cabbages in a garden in which was a modern house glowing with electric lights. A woman was in the garden. A man was repairing a power lawn mower under an electric light on an extension cord plugged into a water pumping station by the barn. An antenna stuck up from the roof of the house and the TV was going. There were many children in the house and in the yard.

We asked to buy some cabbages. "Well," said the woman, "ours are not quite ready yet, but I can send for some to my brother's up the hill across the road." Whereupon

the man called a boy and a girl and sent them off in an automobile that was parked by a driveway through the yard.

While we were waiting for the cabbages we visited with the woman. She and her husband were living on their share of some one-hundred acres of land inherited from the wife's father. The brother lived on his share. The family home had burned. Each of the children had built a new home. This particular one was five years old.

In excellent English the wife told us about their life and means of living. Prefacing each sentence with a beautifully toned, soft "Well," she responded freely to our questions. They are not farmers. The husband is a University janitor, the wife a cook in a private home in Chapel Hill. They commute each day, rain or shine, in their own automobile. They work the garden outside of professional hours. The older children help. They have eight sons and daughters and sixteen grandchildren. They take care of a daughter and her five children and also three from the families of other sons and daughters. "They work us and they worry us" said the grandmother, "but we love to have them." Their daughter is divorced. She is a high-school graduate and is trying to finance a college education and seems to be succeeding. Several of the other daughters are college graduates. All of the eight grandchildren go to a consolidated school.

A telephone line runs close by and it is connected with the house. They have an electric stove, an electric refrigerator, and running water. About the TV the wife said, "My grandchildren just wouldn't stay with me without it."

About that time the car drove up with the cabbages. One of the smaller boys with his sister perched behind him rode out on a bicycle to usher the car in. We paid for the cabbages and they proved to be delicious. There were flowers as well as cabbages in the garden. "Do you work your garden

with a horse?," I asked. "Well, no," the wife replied. "We have a tractor. We did have a horse when we built our house. He was a pet. We worked him some, and all our neighbors borrowed him too. He learned to get out and go visiting. He went out of the neighborhood one night and got on the property of a man who didn't know him. This man shot him, and he came home and died. But we had good neighbors. They helped us get the tractor."

Here was a sweet-sad, healthy picture of a home and a community pioneering in the Machine Age. What they did not have yet they were getting. Education was available in the consolidated school and in the colleges, and it was planned for and used. The automobile and the good road implemented their way of making a living with transportation and power tools. The telephone was available. Rural electrification cooked for them, lighted their house, and gave them communication with all the world through TV. It was not a complete exhibit, but it was an encouraging sample of advantages in common use over the entire commonwealth. Skill, brains, character, and spirit were bringing the rest.

The rural telephone is simply the extension of the existing system already in the towns. It is the chief means of person-to-person communication. It is as necessary to the country dweller as it is to the city dweller. Rural electrification is simply the extension of the great hydro-electric lines already linking the cities and the great industries. The transmission line is as necessary to the country dweller as it is to the city dweller. The actual extension of the telephone line and the transmission wire is the great change of the last half of the period, 1915-1965, in North Carolina. It completes the balance between country and town in populations and occupations through mechanical means.

The great change began with the Federal Rural Elec-

trification Act of 1936. Before that date only ten per cent of the farms in the nation were electrified. Since that date ninety-three per cent have been electrified. The change was not statewide in North Carolina until after World War II. When it did come it was a combined movement for good paved secondary roads, rural telephones, and rural electrification led by Governor Scott. The change has not reached ninety-three per cent in North Carolina because this commonwealth has one of the largest farm populations in the nation and the greatest variety of small farms with uneven economic status. But in 1965 most of the farms in North Carolina are electrified and phone lines and the transmission lines are available to each community along with the automobile and good roads.

Let us go back at this point to 1915 in North Carolina. By then the great hydro-electric companies had been well established, and the cities and larger towns had all of the features current in electrical development; namely, industrial power, street and residential city lighting, the street car, and elevators. There was even one electric railroad, the Piedmont and Northern. Telephone systems in cities and towns were connected with the national system. But there were practically no telephones or electric light and power in the rural districts of North Carolina and the other states.

Wards of 1915 enters the scene with two features of special appeal to country homes. One was a closed system telephone run by batteries so that a rural community could have a local system. It was a forerunner of the present intercommunication system in business offices. The other offering was a gasoline-powered home electric plant for lighting only. This was a partner of the similarly offered gasoline-powered water plant. I know personally of a few enterprising farm homes that had all three of these improvements in 1915. But I have

no statistics as to their number. Accompanying these offerings was a modest assortment of hand tools and supplies for wiring houses.

In general, aside from house lighting, lamps and bulbs, there were such things as flashlights, an electric iron, toasters, hot plates, fans, and a heating pad. One queer feature was a medical battery for home use because "occasional applications of mild current" are beneficial in all sorts of ailments. There was a cigar lighter, a spot-light for the automobile, and a nonactinic ray ruby lamp for use in photographic work.

Wards of 1965, in contrast to the modest 1915 electrical offering, presents a world of infinite variety from gadgets for the individual to heavy machinery for the farm, though most of the heavy machinery continues to be gasoline-powered because extension cords would be impractical. For personal use there is everything from a bottle warmer for the baby to an electric blanket for grandma. The toothbrush, the hair clipper, the shaving machine, the facial or body massager, the exerciser, the hair dryer, the shoe polisher are electrified. For temperature in the house there is every type of heater from a hot point space heater to central radiant heat. There is everything for cooling from a movable room cooling unit to a complete air conditioning system for the whole house. Though in heating there is a choice of wood, coal, oil, or gas, an electric gadget of some sort such as the thermostat has to regulate it. Even the fireplace for wood has a fan to circulate the heat.

In the kitchen and its modern partner, the utility room, everything is electrical. Cooking ranges from individual electric pots, pans, and grills, to an automatic push-button range. Food is prepared by electric knives, scrubbers, grinders, mixers, and blenders. Garbage goes into an electric disposal unit. Dishes are washed by an electric washer which heats its own

water if it is not already hot enough from the electric water heater. Clothes are washed, dried, and ironed by electricity. Rooms and furniture are cleaned by electric floor washers, polishers, furniture dusters, and shampooers for the rugs. The movable vacuum cleaner is the most used cleaning tool, but there is also a complete vacuum system for the entire house. There is a defroster for the roof and an electric fence to keep snakes and other varmints out of the yard.

As to lighting, bulbs are filled with a gas that makes them more efficient, from hydrogen to the neon light. There is every type of ancient or modern bulb, lamp, or lantern for indoors and out of doors. There is a minimum of extension cords and a maximum of convenient wall and floor outlets.

Outdoor lighting for the farm yard and the barn is especially appreciated. Electric milking machines, clippers, and shearers, take the place of old-fashioned hand operations. Electric food preservation devices range from the kitchen refrigerator and freezer to the community freezer locker, creamery, and canning plant. All such devices have revolutionized the meat, vegetable, milk, and the fish businesses, along with the refrigerated truck and good roads.

Electrified hand tools for the carpenter, the electrician, the plumber, the painter have taken the elbow grease out of all building operations and put in all the cabinet-maker's and the machinist's precision in operations on the job. This is wonderful to a person raised as I was around the hand-tools of the woodshop, the machine shop, and the blacksmith shop. Among other benefits they have made the home workshop a major hobby.

In summary, everything that moves, lights, heats, or cools by way of a machine or a gadget can be worked by electricity if it is convenient to plug it in.

It is as easy to sit in the living room of a country home

now and call up Europe, as it is in any city office. Thirty years ago such a home could not call up the doctor. The national channels of radio and TV are available alike in town and country homes. The marvelous electronic development of recording and reproducing instruments are yet more accurate and refined. They are available to country and city alike. The talking movie, the legitimate theatre, everything that population centers enjoy are easily available to country folk by means of the automobile and the good road.

Through electric communication and machinery the automobile is supplemented in its usefulness for the two-thirds of our people who live in the country and work in either town or country.

# Consolidated Schools, Colleges,

#### & Universities

The Machine Age is also the Educational Age. We cannot function in one without the aid of the other. It is not a matter of which is the more important. Each one produces the other. Our economy could not survive without the machine. The machine could never have come into being without education. Both elements come out of discovery, invention, and research. People have made use of machines and education working together since the dawn of history.

The Machine Age, 1900-1965, has produced and refined more machines than all preceding ages put together. The Educational Age, 1900-1965, has produced more schools, colleges, and universities for more people than any age in history. The whole point of this chapter is that for everything in Wards of 1965 there is a course, or a department, or a special school that trains the people who produce it, sell it, service it, buy it, use it, and enjoy it.

Education is, in the best sense of the words, Automation, Mass Production, and Mass Consumption. America is striving to make education universal. Schooling to a certain age is compulsory by law. College and university are compulsory by the necessity of knowing what we do. There was never a time when ignorance was so costly and knowledge was so reward-

ing as in the present. It is not a matter entirely of machines and things. It is also a matter of careers and opportunities for our boys and girls. The A.B. is far more common and necessary for employment than a high school diploma was in 1900.

Nothing is ever one hundred per cent complete. But the thrilling thing in the North Carolina story is that we have developed the schools, the colleges, and the universities, the teachers, the researchers, the courses, departments, and special schools, to staff our farms, our industries, our businesses, and our use and enjoyment of the conveniences and good things of life. It is a public and private development, and its main features have come since 1900, when Governor Aycock led us in putting the common schools into the common life.

The main achievements I list under the names of governors under whose leadership they began. Later governors have been unfailing supporters of the programs once they were inaugurated. I mention the governors as an acknowledgement of their personal leadership, and as symbols of the North Carolina General Assembly and the people working with the governors.

Governor Cameron Morrison was a leader in giving new life to the single plant University, the single plant State College (developed from the A. & M. College), and the Woman's College (developed from the Normal and Industrial College). He led also in giving new life to the teachers' colleges, North Carolina College, and the A. & T. College. His road program and his support for the public schools began the program of consolidated schools.

In 1931, Governor O. Max Gardner led in consolidating the institutions at Chapel Hill, Raleigh and Greensboro into the single University of North Carolina. He also led in state control of the highway system. This accentuated consolidated schools. In 1933, Governor J. C. B. Ehringhaus led in state

assumption of financing an eight-month public school term. This was the climax in provision for consolidated schools. It should be noted also that North Carolina has the unique record of never having closed a school during the Great Depression. In 1941-1945 Governor J. Melville Broughton led the Good Health Movement resulting in (1) the State Medical Care Commission and the state hospital system, and (2) the Division of Health Affairs at the University of North Carolina in Chapel Hill. This Division consists of Schools of Medicine, Pharmacy, Dentistry, Public Health, Nursing, and a Teaching Hospital.

In 1949-1953 Governor W. Kerr Scott led in establishing (1) the system of paved secondary roads, (2) rural telephones and electric power, and (3) educational television from the three campuses of the University of North Carolina. This completed the mechanical facilities for education in the consolidated schools, colleges, and universities. In 1953 Governor William B. Umstead, who died in office, and his successor, Governor Luther Hodges, began a program gearing government, business, and universities in a program that has resulted in greatly increasing the industrial enterprises of the state and distributing them well between cities and rural districts. The culmination of this movement to date is a project of organized research, the North Carolina Research Triangle. In 1961-1965 Governor Terry Sanford led a movement of great potentialities (1) to increase the quality of education, and (2) to decrease the "drop-outs" not at present profiting from schools, colleges, and universities.

In 1965, under Governor Dan K. Moore, the University at Charlotte has been added to the University of North Carolina. The teachers' colleges are fast approaching university status. Great emphasis is being placed on schools. The com-

munity college movement is growing into a regular part of the state system of schools, colleges, and universities.

In the field of private and church related institutions the growth has been equally remarkable. Since the public schools began in the 1830's to replace the old academies, North Carolina has not given much attention to private secondary schools, but there are several fine ones now is existence. Most of the older ones have become junior colleges or full four-year colleges. The old church-related colleges have expanded and enriched their programs, and several new ones have been recently established.

There have been two momentous changes in higher education. In 1924 James B. Duke endowed Trinity College in Durham as Duke University. It is one of the leading universities in America. In this same year Mr. Duke established the Duke Endowment for hospitals, charitable institutions, and, especially to my educational point, aid to other colleges and universities. In 1946 the Reynolds bequest was made to Wake Forest College, providing for its transfer to Winston-Salem, for the Bowman Gray School of Medicine, and for a growth of the college that brings it close to university status.

Now let us apply the impact of education to things in Wards of 1965. The end-product of schools, colleges, and universities in this matter is scientific research. This is the beginning point of the machine and all it does. Research has always been a major activity in universities. In the Machine Age it has been taken up by government and business, and by special national foundations. A unique development of research in the Machine Age is organized research in which teams of specialists from the sciences work together in solving problems. An epoch making example was the explosion of the atom in World War II. A brilliant work-a-day example is the North Carolina Research Triangle in which government, busi-

ness, foundations, and universities all share. Similar enterprises now engage from business alone some 1500 firms and some 600,000 researchers in the nation.

Let us have in mind mathematics, botany, chemistry, geology, and their many special fields from anatomy to some special branch of zoology. Let us have in mind that knowledge as a force in changing things comes out of all of these basic sciences as we consider especially chemistry in things. My exposition is exceedingly elementary because I am an exceedingly elementary chemist. But it will serve to indicate at least new substances in just about everything in Wards in 1965.

First of all there are new forms of metals and metal alloys. Aluminum, magnesium, and manganese form such alloys as duralumin, magnalium, and dowsmetal. Aluminum already familiar in many uses before World War II, became more useful in furnishing lighter structured material in airplanes. The same thing is true of magnesium. Now aluminum and magnesium are used in all sorts of machines, in building materials, in furniture, and in such commonplace things as stepladders. The secret of such versatility is in making the proper alloy.

Steel finds new uses as invar steel, composed of steel and nickel; as vanadium steel, composed of steel and vanadium; as silicon steel composed of steel and silicon; as chromium steel, especially in this form as stainless steel. Steel in these new forms appears in all types of building, in machinery, in tools, in the mechanisms of watches and clocks, and in all electric and electronic devices.

Chromium steel is a wonder. As stainless steel it is used in anything that requires a rust-proof surface. Whole houses can be built of it. It appears in the kitchen as machinery, as cooking utensils, as tubs and sinks, and as cutlery in both the kitchen and dining room. It is widely used in hospital equip-

ment. Chromium itself is so versatile in making alloys with any metal that it appears in all metallic goods. It gives the shine to automobile trimming and keenness to tools. It also appears in thread, cloth, dyes, and paints.

Glass is not only glass as it was known in 1915. It is now a thread, a cloth, a dress, a curtain, an awning; and a glass tempered to the hardness and toughness of steel.

Synthetic fibers and plastics are even more wonderful than metals. Fiberglass, composed of sand, limestone, and soda, resists fire and acid. It appears in curtains, draperies, bed-spreads, wall coverings, handbags, bagging and sacks, lamp shades, and tablecloths. It appears in ropes, twines, and sewing thread for textiles made of spun glass. It is also used in awnings and patio roofs.

The most dramatic use of synthetic fibers is in clothing for men, women, and children, from top to toe, from skin out. These textiles are by names that are now household words. Examples are Orlon, Dacron, Acrilan, Dynil, Saran, Velon, and Vinyon, among many. They have not replaced cotton, wool, silk, and linen; they simply increase choices. They are the secret of the stretch, the wash and wear, the wrinkle-proof garments. They have revolutionized floor and wall covering, draperies, and upholstery. Nylon is the greatest selling point of automobile, truck, and tractor tires in Wards of 1965.

Synthetic plastics are akin in substance to synthetic fibers. They differ from them in that they are molded or poured in manufacture. They take any form or any use desired. They are sponge rubber, the lightest solid known. Or they can be the shaft bearings of the heaviest machinery. They can take the place of wood or metal or leather. They are the fixing element in wood veneers. They are camera film; Hi-Fi records; tape for tape recorders; telephones; radios; TVs. They are essential parts in these machines. They are

also the cabinets that contain them. They are basic elements in paints and varnishes. Torganol applied to a wood floor gives it the wearing quality of tile. Plastics are also tiles, rugs, draperies, walls, shoes, and shoe soles. Formica gives a perfect working surface to all tables and built-in kitchen and utility room furniture. Plastics make golf club heads, pipes and pipe fittings, printing type, mattresses, a squeeze bottle for the baby, a garden hose for the family. Dupont Teflon, to which no food will stick, is a boon in cleaning the oatmeal pot and the egg pan.

Dyes are in a thousand current tints. They give life and color to old and new fabrics.

I am vastly indebted to the World Book Encyclopedia for a current picture of a science on which I have never tried to write before. I am equally indebted to the current Catalog of the University of North Carolina for revealing to me the range and subdivisions of science teaching and research.

My whole point in this elementary exhibit is that a world of science goes into the making and using of things and in the careers and opportunities that flow from science and things. Now how about people, and other than scientific values that move people as they employ things in living? I have three institutions in mind that make a clear and practical demonstration of these values. One is the School of Home Economics at the University of North Carolina in Greensboro. Another is Home Demonstration Work as conducted by the Extension Division of North Carolina State University. The third is the department of home economics as conducted in high schools and colleges, and resourced in the University of North Carolina at Greensboro.

My special example is Home Demonstration as staffed by the wonderful girls from the University at Greensboro and, of course, from other colleges too. I began working with them

thirty-five years ago, and I went to so many meetings from the mountains to the sea that they began to call me a member of the staff. I, of course, functioned only as "the inspirational speaker." I never said a word about home economics. They knew all about that. I talked about cultural resources in books, music, art, folks, and religion. I found that they took my remarks as professional advice. Cultural resources, they told me, were not take-it-or-leave-it adjuncts to home economics. They were the breath of life to home-making and home-life, the arts they were striving to implement with home economics. And I found this to be true as I talked along the same lines at school commencements, to industrial workers, every sort of civic, social, and cultural club, and in churches and at college commencements. I travelled intensively many thousands of miles in North Carolina. I also ranged from Brunswick, Maine, to Miami, Florida; from New York to Denver, from Chicago to New Orleans. I found the same story. We want an art of living.

I thought in 1930 that the combination of domestic science, arts, and fun was one of the most vital specimens of adult education I had ever seen. It was hard work on practical arts, inspiring culture, and fine companionship. I think in 1965 that I see the fruits of this teaching in a fine example of town and country business and pleasure. It is the Curb Market. The most cheerful faces and the friendliest associations I see are mutually exhibited there by both sellers and buyers. They demonstrate a truth not obvious fifty years ago; namely, that town folk and country folk are the same. The apparent difference was in lack of getting acquainted, an isolation arising from simple things such as lack of confidence in one's appearance and one's way of life.

The great change has come in the fact that town and country people are identical in their opportunities now, from

beauty parlor and barber shop to movie and concert. I think the great advance is in the modern American home. No other home in the world equals it in comfort, convenience, and beauty. North Carolina has actually profited by what was a handicap in the railroad, dominated age. The commonwealth has some vigorous and growing cities. But the population is still distributed through villages and countryside. In the United States as a whole one-half of the people live in the cities. In North Carolina two-thirds of the people live in the country. But they live in exactly the same kind of homes the city people live in. Their children go to exactly the same kind of schools the city children go to. In the smaller towns and villages town and country children go to the same consolidated school. Their dress, their social life, their recreations, are all the same. I have visited these schools by the hundred in every county in the state. I trust my intimate first-hand knowledge of their atmospheres.

The leading principle of the modern house is fresh air, sunshine, and freedom of function. The styles of architecture vary from colonial to modernistic forms influenced by the new building materials. But whatever is used is dominated by the reviving Greek mode of utility expressed in beauty, without extraneous ornament for the sake of ornament. Old woods, metals, plastics combine wherever freedom, utility, and grace are aided by the combination.

Furniture design, draperies, floor coverings, beds and bedding follow the same principles. The over-stuffed, over-crowded Victorian rooms have gone. At present the heavy quarter-sawed oak pieces have gone. But I am told they are likely to return as antiques in their turn.

Wards of 1965 and Sears of 1965 offer a wide range of wood reproductions of all the old styles: Colonial, French, Italian, Mediterranean, American Classics, English Classics. OUR

PRICE

#### Price.....

WITH FOUR-HOLE COOKING TOP, HOT

WATER RESERVOIR AND HIGH SHELF

BURNS HARD, (ANTHRACITE) OR SOFT

# CRYSTAL WINDSOR GAST IRON G E



In our Price Table,

They offer swivel rockers, light Danish pieces of wood and plastic, special stacking pieces for corners and out-of-the-way places. There are sofa beds, day beds, double-deckers; plank-style tables, fiber-glass chairs and tables, cellarettes, desks, all sorts of veneers; furniture to divide a room into two sections. Beds are prevailingly without heavy headboards and foot boards. Springs and mattresses are a revelation in comfort. Everything is relatively light, easy to move, and comfortable. Freedom, function, grace prevail.

The cheerful kitchen as compared with the gloomy kitchen of fifty years ago best symbolizes the modern home. Sometimes it is so beautiful as to be a part of the living room. Everything that cooks, washes, drys, and irons is electrical. Often the laundry equipment is put in a utility room. A chemical change has come in the washing department. Detergents have taken the place of soaps.

Compare with the modern kitchen the sort of set-up for cooking and laundering fifty years ago. Then it was all bringing in wood and water, building fires, sifting flour, making dough, grinding coffee. Now even the bread comes sliced, and the coffee is instant. On wash day it was more water to tote and heat; pounding, scrubbing on wash boards, hanging out on the line, starching, and ironing with an iron from the top of the wood stove. Now it is all electric and machine done unless some garments have to be ironed. If so, there is an electric iron.

It would all be sheer luxury if there were domestic servants. But there are few. Cooks and laundresses are professionals, giving part time to a number of homes. They are highly competent experts. Unskilled labor cannot handle the new machinery. It might be luxury if the housewife had nothing to do but tend to the housekeeping machinery. But women are scheduled away from home now as much as men.

### ere Are 2 Pages of the







## djustable Back Rockers



MASSIVE ADJUSTABLE BACK ROCKER IS INITIATING questions of the most confirmation of the most conf

every respect, and made of Quartered Golden Oak, highly polished. Front is neatly carred and you will neitre spelished. Front he neathy carred and you will milter the frame he earth heavy. His at he wide flat arms. the large spring seat, and a very literal shaped cack which is tortical and overly myffler. The bask is as shaped by the say negle while attitude to the carry of the carry to any negle while attitude in the restor. It has the knowled down consumeration which takes the browst fright invite. Any non-easy seat it up has few minories' time. Is up-bridged in facilities in lattice, and the carry of the carry heavy the carry of the carry of the carry of the carry heavy the carry of the carry of the carry of the carry heavy the carry of the carry of the carry of the carry of the heavy of the carry of the carry of the carry of the carry of the heavy of the carry of the heavy of the carry of durable than Velous Pi-weight about 60 lbs

you will get

of one of these chairs after



They work in all the occupations known. They have all sorts of outside engagements, social, club, community. Men now do a great deal of housework.

It is the day of the baby-sitter. There is no longer the nursemaid. It is the day of the nursery school and the kindergarten. From first grade on, children spend more time in school and have more school-activated engagements than were ever known before. A large part of the housewife's time is engaged in chauffering the children. No longer are there regular home chores for children before and after school. School is their business. It is necessary and sometimes it is over-strenuous. It is the most engaged age in history. Sometimes I wonder if we have not oversold ourselves on how much leisure the Machine Age has given us. Perhaps there is no escape from it. I do not know what judgement historians in the future will render on our age. But they will be bound to say that we kept busy, stayed on the go, and expended a lot of time, energy, and money with reasonable good will and intelligence.

From 1915 to 1965 there has been steady improvement in the working life of the people. It is a costly improvement. I cannot figure out the statistics involved, but a pair of overalls that cost \$1.00 in 1915 sells for \$5.00 in 1965. A cotton wash dress that sold for 58 cents in 1915 sells for \$5.00 in 1965. A \$3.50 shoe in 1915 is a \$20.00 shoe in 1965. An eight-foot wooden stepladder was \$1.95 in 1915; it is \$18.00 in 1965. A Hohner harmonica that was 25 cents in 1915 now sells for \$3.00.

But there is more money to pay with in 1965 than there was in 1915. A dollar a day was a good wage in 1915; a dollar an hour is more the rule in 1965. There is more enjoyment and security in the worker's day and year. Social security, paid vacations, and paid sick leaves were rare in the

dollar-a-day jobs in 1915. They are the rule in comparable jobs in 1965. A ten-hour day and a fifty-five hour week were the rule in 1915, whereas an eight-hour day and a forty-hour week are the rule in 1965. Medical care and an aggressive war on poverty are in the making. The general welfare of the average family is far above the living standard of 1915. Recreational education has become a new profession.

There is one great educational advance in folk medicine. Wards of 1915 has a large list of patent medicines and nostrums. These are nearly all gone from Wards of 1965. I note especially two items not in common usage in 1915. One is vitamins. I cannot recall the word or the pill as being in use before World War I. Evidently machines are taking these elements out of food and the pharmacists have to put them back. The other element is reducing pills. Evidently the modern kitchen produces things as tempting as those "Mother used to make." What I like to think of is what Mother could have made in a modern kitchen. The great thing about the decline of patent medicines is the educational work of institutions such as Duke and Bowman Gray Schools of Medicine and the Division of Health Affairs of the University of North Carolina at Chapel Hill. This fundamental work feeds regularly into the health programs, the home economics programs, and the physical education programs of the schools.

Along with health education goes safety education, particularly with the automobile and power machines. We have not learned the morals and manners we will have to learn before machinery becomes an unmixed blessing.

In physical education all games and sports have been developed to the highest point in their history. I believe swimming is the greatest contribution of physical education programs. Personally, I prefer walking. I think that will

come back into use if the parking situation gets much worse. At present golf is a good substitute for it and a wonderful sport for women as well as men.

A feature of modern home building is the garage built as part of the home. It is an essential. All life in 1965 is conditioned by the automobile.

A startling change from 1915 is in books. In Wards of 1915 there is a good general library of old and current literature. In 1965 there are only the Bible, an encyclopedia, a dictionary. Otherwise there appears a set of manuals which may be generally described as "How-to-do-it" books. But before we conclude that literature has gone out we should consider the bookstores. I never knew of but one such store in my youth. Sears was my bookstore. Now, in addition to bookstores, drug stores, grocery stores, and filling stations sell books. We should consider publishers' enterprises such as The Book of the Month Club. We should consider the public library and the bookmobile. Above all we should consider the school library and the tremendous amount of books the children bring home. They read them too. My grandchildren read classics I never saw until I was in the university. The World Book Encyclopedia I constantly refer to is from my school-girl granddaughter's library.

In music the change is equally as dramatic, particularly in regard to pianos and organs. In Wards of 1915 these occupy page after page. In 1965 there is not a single piano and only one organ, a small electric chord variety. Wind and string instruments remain about the same in quantity in Wards of 1965 as in Wards of 1915, but they seem to be improved in quality. In addition to conventional string instruments, there is a large offering of strings wired for sound. Certainly with Hi-Fi, radio, and TV there is more music to listen to than ever before. In-person concerts contain all sorts of per-

formers, including pianists and organists. The great development is in bands among school children. Band Day in Kenan Stadium brings out as many as 5,000 boys and girls playing as one band. Departments of music, schools of music, music clubs are flourishing. As to pianos I am told the new ones do not hold up as the old ones did. That may be the cause of the decline in mail order sales. But I believe it is because of the growth of music stores.

Art in the catalogs is mainly an educational matter. The offerings I judge to be about the same in both catalogs. The great things in North Carolina are the growth of departments and schools of art, and the coming of museums such as Ackland and Morehead in Chapel Hill and of the North Carolina Museum of Art in Raleigh.

I cannot extend this essay into a book. It would take a library of books to explore all the vistas present in Wards of 1915, Wards of 1965, Sears of 1965, and the University catalog of 1965. I have made good my simple thesis that the Machine Age has changed North Carolina from one of the worst balanced commonwealths in the United States, economically, socially, and culturally, to one of the best balanced.

The automobile has done it through transportation and power. Electricity has done it through communication and power. The telephone and the automobile have done it through increasing person-to-person communication.

And yet, I think consolidated schools, colleges, and universities go beyond machines, conveniences, and things. They bracket the machine and the thing from its inception to its destiny. They inculcate the moral and intellectual controls which decide who is master over whom. Is it to be machines and things over people, or people over machines and things? I believe myself that the destiny of people lies in the ancient

balance between science, social science, and the humanities.

Alfred North Whitehead, mathematician, scientist, and philosopher, teaches that the way is in the balance between vocation and avocation. All vocations in a democratic way of life tend to become absorbing professions. Avocations correct the consequent narrowness of view. He says that the American system of schools, colleges, and universities has maintained the balance better and more humanely here than in any other nation. At least, so I gather from reading that part of his writings I can understand.

Robert Frost, the poet, gives a humorous and stimulating insight into the Machine Age. He characterizes the Machine Age as "Spirit duffing into Matter." A duffer is one who makes awkward attempts at work or play. Frost's meaning as I get it is that the Machine Age is a severe task and a great adventure full of potency for good or evil. His view is optimistic. In time we shall learn how to do better what we now do poorly. We are not destined to be always duffers.

Charles and Mary Beard examine the first half of the Machine Age under some fourteen categories of change. They are: (1) new changes in labor, (2) the new freedoms of women, (3) new clubs and associations, (4) the passion for reforming, (5) the business man and aesthetics, (6) native pride vs. foreign snobbery, (7) widening and deepening intellectual pursuits, (8) utility and practicality vs. pure speculation, (9) drama, movies, the radio, and impending TV, (10) plastic art, (11) music, (12) the press, (13) education, pre-school, school, and adult, and (14) philosophy and theology.

They hold their vast synthesis within two bounds. One is the Machine Age in which the making and selling of material goods were the supreme activities of society. The other is a characterization of the American spirit. I

quote the main points; belief in unlimited progress, an invulnerable faith in democracy; the ability of the undistinguished masses as contrasted with heroes and classes, to meet by reasonably competent methods the issues raised in the flow of time; faith in the invention of invention—effecting ever wider distribution of the blessings of civilization, health, security, material goods, knowledge, leisure, and aesthetic appreciation; doubting not the capacity of the Power that had summoned into being all patterns of he past and present, living and dead, to fulfill its endless destiny.

"If so" they conclude, "it is the dawn, not the dusk, of the gods."

Doctor Battle lived for four years more after 1915. He never finished his memoirs. There is no general conclusion in the book of these reminiscences he left us. But his cheerful, optimistic spirit had not only observed but had participated in eighty-four years of historic change when he wrote the letter with which this essay began. "The changes," he wrote, "will be great and important." They certainly have been. I think Doctor Battle was sure of that which is permanent in change.

#### Bibliographical Notes

I have not burdened this more or less free running essay with footnotes.

I have carefully studied the following documents:

1) Montgomery Ward and Company's Catalog No. 82. New York, 1914.

This is the catalog Doctor Battle sealed in the tin box. It has been returned to the Southern Historical Collection for use by my successor in 2015 A.D.

2) Catalog, 1965, Spring, of Montgomery Ward and Company, Chicago.

Also returned to Southern Historical Collection.

3) Catalog, Fall and Winter, 1965, of Sears, Roebuck and Company, Greensboro, North Carolina. This is a borrowed copy and has been returned to the owner.

I refer to the three catalogs respectively as Wards of 1915, Wards of 1965, and Sears of 1965. This is the

modern usage of the two firms.

4) Record of the University of North Carolina at Chapel Hill, the General Catalog issue, Number 685, May 25, 1965, Chapel Hill.

I am deeply indebted to the following historical works to which my readers are heartily referred:

- 1) Memories of an Old-Time Tar Heel, by Kemp Plummer Battle. Edited by his son, William James Battle. Chapel Hill, The University of North Carolina Press, 1945.
- 2) I also list my own book, *The Light That Shines*, by Robert B. House, Chapel Hill, The University of North Carolina Press, 1964. It gives further notes on Doctor Battle.

- 3) The Rise of American Civilization, by Charles A. and Mary R. Beard, 2 Vols. New York, The Macmillan Company, 1927.
- 4) The Good Old Days, a history of American Morals and Manners as seen through the Sears, Roebuck Catalogs, 1905 to the present, by David Lewis Cohn, New York, Simon and Schuster, 1940.
- 5) The World Book Encyclopedia, Chicago, Field Enterprises Educational Corporation, 1958.
- 6) North Carolina, Rebuilding an Ancient Commonwealth, by Robert Digges Wimberly Connor, 2 vols. Chicago and New York, The American Historical Society, Inc., 1929.
- 7) North Carolina, The History of a Southern State, by Hugh Talmage Lefler and Albert Ray Newsome, Chapel Hill, The University of North Carolina Press, 1954.
- 8) Maury's Manual of Geography. New York, University Publishing Company, 1899. This contains the section on North Carolina by Dr. Marcus Cicero Stephens Noble.

References to Robert Frost are my impressions of his poems, his lectures in Chapel Hill, and some twenty years of friendship with him.

References to Alfred North Whitehead are based on twenty years of reading in his historical, educational, and general essays.

